

Remarks

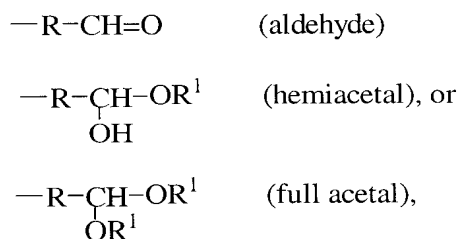
Claims 14 - 27 are pending. Favorable reconsideration is respectfully requested.

Applicants confirm the provisional election of claims 18 - 22 with traverse. It is first noted that product-by-process claims 14 - 17 contain all the limitations of elected process claims 18 - 22, and thus if the latter claims are allowable, rejoinder of the product claims is mandatory under MPEP §821.04.

The basis for lack of unity of invention in this National Stage of a PCT application is lack of a common technical feature, which is incorrect, as illustrated below. The lack of unity under PCT Rule 13.1 must be withdrawn for this reason. It is noted that unity of invention has already been addressed by the PCT Examining Authority and the claims have already been found to meet all PCT standards.

The Office alleges lack of a common technical feature as the basis for its conclusion of non-unity under PCT Rule 13.1. However, the claims do contain such a common technical feature. All the claims, whether product or process, require that the silane-modified polyvinyl alcohol or polyvinyl acetal (both "PVA") is prepared by polymerizing a vinyl ester of an organic carboxylic acid (1-18C) in the presence of a silane-containing aldehyde, acetal, or hemiacetal. As a result, silane moieties are incorporated into the polymer. None of the prior art discloses such a process or product, and the product is clearly different from other silane-containing polymers as shown by the examples and comparative examples. This topic is further discussed below in conjunction with the rejection under 35 U.S.C. § 102(b). It should be clear that there is a common technical feature, and therefore the claims must be rejoined. Even were a common technical feature absent, the product claims containing all the limitations of the process claims, i.e. claims 14 - 17 and 23 - 27 must be rejoined per MPEP §821.04.

Claims 18 - 22 have been rejected under 35 U.S.C. § 102(b) over Maruyama et al. EP 123927 ("*Maruyama*"). Applicants traverse this rejection. The process of claims 18 - 22 require polymerizing a vinyl ester of a C₁₋₁₈ branched or unbranched carboxylic acid in the presence of a silane-containing aldehyde, hemiacetal, or full acetal. These compounds have the formula



where R is an alkylene group and R¹ is a hydrocarbon group such as an alkyl or aryl group, and where the remaining valence on the left hand side is attached to a silane moiety. Reference may be had to the specification on pages 4 - 6, and general reference with regard to aldehydes, hemiacetals, and acetals may be had to Morrison and Boyd, ORGANIC CHEMISTRY, Allyn and Bacon, © 1966, 2d Ed. p. 642.


Maruyama discloses three methods of producing silane-modified polyvinyl alcohol (PVAL) on pages 4 and 5. In the first method, the polymer is first produced by polymerizing a vinyl ester monomer to produce a polyvinyl ester, the polyvinyl ester polymer is hydrolyzed to PVAL, and then subsequently post-modified by reaction with a silylating agent reactive with the polyvinyl alcohol hydroxyl groups. In the second process, the vinyl ester monomer is addition copolymerized with a silyl group-containing olefinically unsaturated monomer, which is then saponified (hydrolyzed) to convert vinylester-derived moieties to vinyl alcohol "derived" moieties. In the third process, polyvinylester polymers having terminal silyl groups, produced by polymerizing a vinyl ester monomer in the presence of a silyl mercaptan ($\equiv\text{Si-R-SH}$), is saponified (hydrolyzed). At no place in *Maruyama* does *Maruyama* disclose the use of either a silane-containing aldehyde, hemiacetal, or full acetal. If the Office believes this to be incorrect, the Office is invited to point with particularity to the pages and line

numbers where a silane-containing $-R-CH=O$, $-R-CH(OH)-OR^1$, or $-R-CH(OR^1)_2$ group is disclosed. Applicants have thoroughly reviewed *Maruyama* and fail to find any such disclosure.

The requirement for anticipation is one of strict identity. *Trintec Industries, Inc. v. TOP-U.S.A. Corp.* 295 F3d 1292 (Fed. Cir. 2002). In *Trintec*, the Federal Circuit also indicated that in view of the strict identity test, cases of anticipation are rare. Here, there is no disclosure of polymerization in the presence of a silane-containing aldehyde, hemiacetal, or acetal. There is not even any remote similarity, much less any strict identity. Nor does *Maruyama* teach or suggest Applicants' process or product. The rejection of the claims under 35 U.S.C. § 102(b) over *Maruyama* must be withdrawn. Since there is a common technical feature, the claims also must be rejoined.

Applicants submit that the claims are now in condition for Allowance, and respectfully request a Notice to that effect. If the Examiner believes that further discussion will advance the prosecution of the Application, the Examiner is highly encouraged to telephone Applicants' attorney at the number given below.

Respectfully submitted,
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